SCCSID = eaa_canal_profiles.man v1.1 02/15/03

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| SOUTH FLORIDA WATER MANAGEMENT MODEL V5.0 |
| INPUT MAN PAGE FOR |
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| eaa_canal_profiles == 2-way look-up table that defines water surface profles for the major |
| EAA conveyance canals in terms of downstream stage-upstream stage and |
| discharge; |
| (unit no. 13) read in subroutine gen_model_def_param_data from |
| source file gen_model_def_param.F) |
| |
| This file summarizes the HW-TW-STG relationships in the major EAA conveyance canals. These relationships were |
| determined via backwater analysis using the water surface profile computer code HEC-2 for a practical range |
| of tailwater and discharge combinations |
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COLUMNS VARIABLE NAME   FORMAT   DESCRIPTION
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1. NUMBER OF CANAL REACHES: (1 record total)

1-5   nreach   I5   number of EAA canal reaches where water surface profiles
                                will be defined; equal to nine (for now)

        note: Set of records 2 through 4 is read in nreach times.
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2. WATER SURFACE PROFILE DEFINITION: (1 record total)

1-5   ireach   I5   reach number
6-10   ntws(ireach)   I5   number of canal downstream/tailwater stages to read in
11-15   n_eaaflows(ireach)   I5   number of (steady-state) discharge values to read in

        note: Set of records 3 and 4 is read in for j = 1, ntws(ireach) times.
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3. DOWNSTREAM STAGE DATA: (1 record total)

1-10   dsstage(j,ireach)   F10.0   canal downstream/tailwater stage (ft NGVD) for canal reach "ireach"

        note: Record 4 is read in for i = 1,n_eaaflows(ireach) times.
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4. DISCHARGE AND UPSTREAM STAGE DATA: (n_eaaflows(ireach) records total)

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1-10    eaaflow(i,j,ireach)              F10.0   (steady-state) discharge (cfs)
11-20   usstage(i,j,ireach)             F10.0   canal upstream/headwater stage (ft NGVD) corresponding to
                                                (steady-state) discharge eaaflow(i,j,ireach) and canal
                                                downstream/tailwater stage dsstage(j,ireach)

        note: Typically, ireach = 1,2,3 and 4 are used for a no-STA simulation while ireach = 5,6,7,8 and 9
              are used for a with-STA simulation.
        note: Since the look-up table is monotonic, the 2-way interpolation routine associated with it expects
              dsstage() and usstage() to change (increase decrease) in the same direction as they are defined
              in this file.
        Additional notes:
         The current EAA reaches defined in this input file are:
         ireach       upstream        downstream                  description
            1         S354_hw         S8_tw       canal reach along the Miami canal between S354 and S8
                                                  (about 26.2 miles long)
            2         S351_hw         S7_tw       canal reach along the North New River canal between S351 and S7
                                                  (about 28.6 miles long)
            3         S351_tw         S6_hw       canal reach along the Hillsboro canal between S351 and S6
                                                  (about 23.7 miles)
            4         S352_tw         S5A_hw      canal reach along the West Palm Beach canal between S352 and S5A
                                                  (about 20.8 miles long)
            5         S354_tw         S8NEW_hw    canal reach along the upper Miami canal between S354 and location
                                                  of STA diversion structure (referred to as S8NEW)
                                                  (about 19.3 miles long)
            6         S351_tw         S7NEW_hw    canal reach along the upper North New River canal between S351
                                                  and location of STA diversion structure (referred to as S7NEW)
                                                  (about 24.6 miles long)
            7         S351_tw         S6_hw       canal reach along the Hillsboro canal (with revised cross-sections)
                                                  between S351 and S6 (about 23.7 miles long)
            8         S8NEW_tw        S8_hw       canal reach along the lower Miami canal between location of STA
                                                  diversion structure (referred to as S8NEW) and S8
                                                  (about 6.9 miles long)
            9         S7NEW_tw        S7_hw       canal reach along the lower North New River canal between location
                                                  of STA diversion structure (referred to as S7NEW) and S7
                                                  (about 4.0 miles long)
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